

Case 3656***Cerambyx striatus* Goeze, 1777 (currently *Dorcadion glycyrrhizae striatum*) and *Cerambyx striatus* Fabricius, 1787 (currently *Chydarteres striatus*) (Insecta, Coleoptera, CERAMBYCIDAE): proposed conservation of the specific names**

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Abstract. The purpose of this application, under Article 23.9.5 of the Code, is to conserve the specific names *Cerambyx striatus* Goeze, 1777 and *Cerambyx striatus* Fabricius, 1787. *Cerambyx striatus* Linnaeus, 1758, *C. striatus* Goeze, 1777 and *C. striatus* Fabricius, 1787 are primary homonyms, but the first name has never been congeneric with either of the other two because it was transferred to *Callidium* Fabricius, 1775 two years before the description of the first junior primary homonym. The other two nominal species have not been considered congeneric since 1817, when Fabricius's species was transferred to *Trachyderes* Dalman, 1817. Finally, *C. striatus* Goeze was removed from *Cerambyx* Linnaeus, 1758 and placed in *Dorcadion* Dalman, 1817 in 1947. Currently, *Cerambyx* has no species with the specific name *striatus* and the three primary homonyms are in use in distinct generic combinations and are placed in three different subfamilies of CERAMBYCIDAE. It is proposed that the names *Cerambyx striatus* Goeze, 1777 and *C. striatus* Fabricius, 1787 be conserved by ruling that they are not invalid by reason of being junior primary homonyms of *C. striatus* Linnaeus, 1758.

Keywords. Nomenclature; taxonomy; Insecta; Coleoptera; CERAMBYCIDAE; CERAMBYCINAE; LAMIINAE; SPONDYLIDINAE; ASEMINI; DORCADIONINI; EBURIINI; TRACHYDERINI; *Cerambyx*; *Aseum*; *Dorcadion*; *Styliceptus*; *Chydarteres*; *Cerambyx striatus*; *Aseum striatum*; *Dorcadion glycyrrhizae striatum*; *Chydarteres striatus*; *Styliceptus sericata*; longhorn beetles; Palaearctic Region; Nearctic Region; Neotropical Region.

1. Linnaeus (1758, p. 342) placed 25 genera in the order Coleoptera. *Cerambyx* Linnaeus, 1758, the type genus of CERAMBYCIDAE Latreille, 1802, was described by Linnaeus (1758, pp. 342, 388) for 52 species. One of these was *Cerambyx striatus* Linnaeus, 1758, a species widely distributed in the Northern Hemisphere boreal forest, from North America to Asia and Europe (type locality: '*Habitat in Europa*', Linnaeus, 1758, p. 396). *Cerambyx striatus* Linnaeus, 1758 was transferred by Fabricius (1775, p. 191) to his new genus *Callidium* Fabricius, 1775 and 55 years later, Eschscholtz (1830, p. 66) described *Aseum* Eschscholtz, 1830, transferring this species to it, where it is currently placed. *Aseum striatum* (Linnaeus, 1758) has 26 junior synonyms (Löbl & Smetana, 2010) and its syntypes are in the Linnean Society of London, London, United Kingdom (The Linnean Society of London, 2014).

Today *Asemum* has nine valid species and is placed in the tribe ASEMINI Thomson, 1861 of SPONDYLIDINAE Audinet-Serville, 1832, CERAMBYCIDAE (Löbl & Smetana, 2010; Bezark, 2005).

2. Goeze (1777, pp. 458–459) divided *Cerambyx* into five classes ('Klasse') and described *Cerambyx striatus* Goeze, 1777 in his Class Three. Goeze (1777, p. 464) credited his *C. striatus* to I.I. Lepekhin (cited by Goeze as 'Lepechins'), who described this species in his book (Lepekhin, 1772, p. 320, pl. 10, fig. 8), later translated into German (Lepekhin, 1775). Goeze (1777, p. 464) cited the German translation (Lepekhin, 1775, p. 198, pl. 10, fig. 8), in which Lepekhin did not mention the Latin name for this species, but Goeze failed to note that, in the original Russian version, Lepekhin (1772, p. 320, footnote) had tentatively identified his specimen as 'Lineatus Linn.?'. As Lepekhin (1772, 1777) did not propose any new name in accordance with the Code, the first available name for this species therefore dates from Goeze (1777), as he was the first to describe it applying binominal nomenclature. Sherborn (1902, p. xxvi) claimed that Goeze (1777) did not apply binominal nomenclature in his work. Goeze's (1777) volume contains a number of polynominal names and is not consistently binominal. However many names established by Goeze (1777) are widely used in zoology, including important catalogues, e.g. Löbl & Smetana (2010) and the Commission has in the past placed several Goeze's names on the Official List, with no ruling on their availability (e.g. *Cicada atropunctata* Goeze, 1778 [Opinion 365]; *Aphis juglandis* Goeze, 1778 [Opinion 1358]; *Curculio marmoratus* Goeze, 1777 [Opinion 1526]; *Staphylinus punctulatus* Goeze, 1777 [Opinion 1250]). Since its original description, many authors have treated *Cerambyx striatus* Goeze, 1777 (although in various generic combinations) as a valid name; and the name is included in all major catalogues, checklists and databases (e.g. Aurivillius, 1921, p. 25; Breuning, 1947, p. 165; Breuning, 1962, p. 210; Danilevsky, 2001, p. 6; Danilevsky, 2006, p. 12; Löbl & Smetana, 2010, p. 255; Tavakilian & Chevillotte, 2012, etc.). Rejecting this name of Goeze on the grounds that it was not published in a consistently binominal work would undoubtedly lead to considerable confusion. A proposal of including a request under the plenary power to consider the name *Cerambyx striatus* Goeze, 1777 as available will be the simplest solution and the most suitable for maintaining stability.

3. *Cerambyx striatus* Goeze, 1777 remained in its original combination until Aurivillius (1921, p. 25) transferred it to *Dorcadion* Dalman, 1817, and Danilevsky (2001, p. 6) subsequently considered it as one of the 12 subspecies of *Dorcadion glycyrrhizae* (Pallas, 1773). *Dorcadion glycyrrhizae striatum* is distributed along the eastern border between Russia and Kazakhstan (Danilevsky, 2001, 2006), and it has four junior synonyms (Löbl & Smetana, 2010). A neotype from Orenburg, Russia, was designated by Danilevsky (2006, p. 12) and deposited in the Zoological Institute of the Russian Academy of Sciences, St. Petersburg, Russia. Currently, *Dorcadion* is composed of more than 200 species and is placed in the tribe DORCADIONINI Swainson, 1840 of CERAMBYCIDAE (Latreille, 1802), LAMIINAE Latreille, 1825 (see Löbl & Smetana, 2010; Bezark, 2005).

4. *Dorcadion glycyrrhizae striatum* (Goeze, 1777) has a junior secondary homonym, *Dorcadion striatum* (Dalman, 1817), originally described by Dalman (1817b, p. 175) as *Lamia (Dorcadion) striatum*. Nonetheless, this case of homonymy is well known and a junior subjective synonym of *D. striatum* (Dalman), *Dorcadion holosericeum*

holosericeum Krynicky, 1832, is widely used as the valid name for this species in accordance with the Code (e.g. Löbl & Smetana, 2010). The two morphs of *Dorcadion glycyrrhizae striatum* (Goeze, 1777) proposed by Breuning (1947, p. 165) – *D. striatum* m. *humeropunctatum* and *D. striatum* m. *dorsolatevittatum* – are infrasubspecific and unavailable under Article 45.6.2 of the Code.

5. In the second part of his *Catalogus systematicus Coleopterorum*, Voet (1778, p. 17) described the new species *Cerambyx striatus* from Demerara, a former Dutch colony in today's Guyana. Nonetheless, in contrast to Goeze's volume, Voet's work is widely considered as non-binominal and thus names published in it, including 'Cerambyx striatus Voet', are broadly considered as unavailable (e.g. Sherborn, 1902; White, 1981; Cebeci & Özdikmen, 2010; Löbl & Smetana, 2010; Krell, 2012). Recognizing this, 'Cerambyx striatus Voet' is here treated as an unavailable name.

6. After its publication in the 18th century, the name *Cerambyx striatus* Voet was largely forgotten until 1991, when Tavakilian (1991, p. 440), based on the illustration published by Voet (1778), established the synonymy between *Cerambyx striatus* Voet, 1778 and *Styliceptis sericata* (Pascoe, 1859), the only species of *Styliceptis* Lacordaire, 1868, and considered the supposed senior synonym as the valid name. Following Tavakilian's (1991) decision, a great number of subsequent authors have cited *Styliceptis striatus* (Voet, 1778) as a valid name (e.g., Martins, 1999, p. 132; Hovore, 2006, p. 371; Giuglaris, 2012, p. 61; Monné, 2013, p. 195). Nonetheless, as Voet's name is unavailable, the valid name for this species must be *Styliceptis sericata* (Pascoe, 1859) and the synonymy proposed by Tavakilian (1991) is incorrect. In fact, *Styliceptis sericata* was already recognized as valid both before (e.g. Lacordaire, 1868, p. 292; Bates, 1870, p. 263; Bates, 1872, p. 174; Gemminger & Harold, 1872, p. 2813; Bates, 1880, p. 19; Aurivillius, 1912, p. 78; Blackwelder, 1946, p. 563) as after Tavakilian's work (e.g. Chemsak et al., 1992, p. 3; Chemsak & Noguera, 1995, p. 58) and is the type species of *Styliceptis*; therefore, recognizing Voet's name as unavailable does not cause considerably instability.

7. Fabricius (1787, p. 133) described *Cerambyx striatus* Fabricius, 1787 from Cayenne, French Guiana. Thirty years later Dalman (in Schönherr, 1817a, p. 364) established the genus *Trachyderes* Dalman, 1817 with fourteen species, including the transferred *Cerambyx striatus* Fabricius. Finally, Hüdepohl (1985, p. 72) described the genus *Chydarteres* Hüdepohl, 1985 and transferred *Trachyderes striatus* (Fabricius) to it, where it remains today. *Chydarteres striatus* (Fabricius) has two subspecies, the nominotypical subspecies, which is widely distributed in South America east of the Andes, and *C. striatus schaeferi* (Bosq, 1947), known from Bolivia and Argentina (Monné, 2013, p. 730). *Chydarteres striatus striatus* has three junior synonyms; and a syntype is currently housed in the Natural History Museum of Denmark (on long term loan from the Zoologisches Museum, Universität Kiel, Kiel, Germany) (Zimsen, 1964, p. 165; Hüdepohl, 1985, Monné, 2013, pp. 729–730), and other in Hunterian Museum, University of Glasgow, Glasgow, United Kingdom (Hunterian Museum and Art Gallery, 2014). The genus *Chydarteres* has eight species and is placed in the tribe TRACHYDERINI Dupont, 1836 of CERAMBYCIDAE, CERAMBYCINAE.

8. The three primary homonyms – *Cerambyx striatus* Linnaeus, 1758, *C. striatus* Goeze, 1777, and *C. striatus* Fabricius, 1787 – have never all been considered congeneric at once. Linnaeus's species was transferred to *Callidium* by Fabricius

(1775) two years before the description of *C. striatus* Goeze and was therefore never congeneric with any of its junior homonyms. The two latter nominal species, however, were congeneric for 30 years between the description of Fabricius' species in 1787 and its transfer to *Trachyderes* in 1817. Goeze's species remained in *Cerambyx* for 170 years until 1947, when it was transferred to *Dorcadion*. So today *Cerambyx* has no species with the specific name *striatus*.

9. The three primary homonyms are currently placed in different genera and subfamilies: *Asemum striatum* (Linnaeus) in SPONDYLIDINAE, *Dorcadion glycyrrhizae striatum* (Goeze) in LAMIINAE, and *Chydarteres striatus* (Fabricius) in CERAMBYCINAE. Although *Cerambyx*, the genus group name of the original combination, is in the same subfamily as *Chydarteres* (CERAMBYCINAE), they are placed in different tribes: the former in CERAMBYCINI and the latter in TRACHYDERINI. Thus the possibility of the three species being considered congeneric in the future can be dismissed. In order to maintain stability, under Article 23.9.5 of the Code, it is preferable to maintain the three names in their current usage rather than replace the junior homonyms by one of their junior synonyms. The names *Cerambyx striatus* Goeze, 1777 and *C. striatus* Fabricius, 1787 are widely used, and their conservation will promote stability.

10. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary power to rule that:

- (a) the name *Cerambyx striatus* Goeze, 1777 is not invalid by reason of being originally published in a not consistently binominal work;
- (b) the name *Cerambyx striatus* Goeze, 1777 is not invalid by reason of being a junior primary homonym of *Cerambyx striatus* Linnaeus, 1758;
- (c) the name *Cerambyx striatus* Fabricius, 1787 is not invalid by reason of being a junior primary homonym of the names *Cerambyx striatus* Linnaeus, 1758 and *Cerambyx striatus* Goeze, 1777;

(2) to place on the Official List of Specific Names in Zoology the following names:

- (a) *striatus* Linnaeus, 1758, as published in the binomen *Cerambyx striatus*;
- (b) *striatus* Goeze, 1777, as published in the binomen *Cerambyx striatus*, with the endorsement that it is not invalid by reason of being originally published in the not consistently binominal work or being a junior primary homonym of *Cerambyx striatus* Linnaeus, 1758, as ruled in (1a) and (1b) above;
- (c) *striatus* Fabricius, 1787, as published in the binomen *Cerambyx striatus*, with the endorsement that it is not invalid by reason of being a junior primary homonym of *Cerambyx striatus* Linnaeus, 1758 and *Cerambyx striatus* Goeze, 1777, as ruled in (1c) above.

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